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From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
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Subject: Info-Hams Digest V93 #1485
To: Info-Hams

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Today's Topics:

SWR tweeking: Details, details...

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
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Problems you can't solve otherwise to brian@ucsd.edu.

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(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Sat, 18 Dec 1993 18:50:23 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!
cs.utexas.edu!swrind!emory!rsiatl!ke4zv!gary@network.ucsd.edu
Subject: SWR tweeking: Details, details...
To: info-hams@ucsd.edu

In article <CI72uE.839@srigenprp.sr.hp.com> alanb@sr.hp.com (Alan Bloom) writes:
>Gary Coffman (gary@ke4zv.atl.ga.us) wrote:

>
>: Well that depends on why you're doing the SWR measurement, and how well
>: you know the characteristics of your line. If you know your particular
>: line characteristics, you can make the measurement *anywhere* that's
>: convenient and use the Smith Chart, or the formulas in the Antenna Book
>: to determine what complex impedance appears at any point in the system.
>
>An SWR meter does not measure complex impedance, no matter where it is
>placed. It measures the magnitude (but not the phase) of the reflection
>coefficient and displays that on a meter calibrated in units of SWR.

Absolutely correct, and what I said in my second paragraph when talking
about measurements at the antenna. All you get is a number that can be
translated into the absolute value of the complex impedance mismatch, not

whether it's resistive or reactive, or the sign if reactive. There are ways of determining those things with the aid of a SWR meter, but it requires you to vary another independant variable, frequency.

>Assuming a lossless feedline, the SWR is the same at all points along
>the line.

No real line is lossless, though some lines are much better than others. Lossless lines aren't required, but knowledge of your line's characteristics is required.

Gary

--

Gary Coffman KE4ZV	I kill you,	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems	You kill me,	uunet!rsiatl!ke4zv!gary
534 Shannon Way	We're the Manson Family	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244	-sorry Barney	

End of Info-Hams Digest V93 #1485

